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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,911	01/17/2002	James Kelly Thomas	46171-026	3406

7590

04/11/2003

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EXAMINER

MILLER, TAKISHA S

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,911

Applicant(s)

THOMAS ET AL.

Examiner

Takisha Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 January 2003 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.
2. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.
3. In order to avoid abandonment, the drawing informalities noted in Paper No. 7, mailed on 12-26-02, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kingery et al.
(H86)(hereinafter Kingery).

- a. With respect to claim 1, Kingery teaches a shock tube (12) comprising a driver section (16), an extension section (18) connected to the driver section (12), shock

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absorbent material (Col. 2, lines 9-11), wherein the driver section (12) and extension section (18) define a cavity (Fig. 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osofsky (5,197,323) in view of Legate (5,996,570).

A. With respect to claims 1 and 6, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12). The driver section (12) and extension section (35) define a cavity (see examiner's markings on Fig.1). Osofsky lacks teaching a shock absorbent material. Legate teaches a shock absorbent material (42).

It would have obvious to one of ordinary in the art at the time of the invention to modify Osofsky to include a shock absorbent material as taught by Legate in order to effectively absorb vibrations within the tube (See Legate Col. 4, line 65- Col. 5, line 18).

B. With respect to claim 2, Osofsky teaches a shock tube (10) wherein the extension section (35) includes sidewalls (Fig.1).

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C. With respect to claim 3, Osofsky teaches a shock tube (10) wherein the driver section (12) includes an end wall (see examiner's markings on Fig.1) oppositely disposed from the extension section (35).

D. With respect to claim 4, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

E. With respect to claim 5, Osofsky teaches a shock tube (10) wherein the expansion section (30) includes sidewalls (see examiner's markings on Fig.1).

8. Claims 7,8 and 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osofsky (5,197,323) in view of Lacey, Jr. et al. (5,505,081).

A. With respect to claims 7,8 and 13-15, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12) but lacks explicitly teaching active vents disposed over a holes in the extension section. Lacey, Jr. et al. teach two or more active vent (45,46).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osofsky to include active vent as taught by Lacey, Jr. et al. in order to selectively release pressure within the chamber (See Lacey, Jr., Col. 5, lines 59-61).

B. With respect to claim 12, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

C. With respect to claim 16, Osofsky teaches a shock tube (10) comprising a driver section (12) and an extension section (35) connected to the driver section (12). Osofsky lacks

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teaching the extension section is adjustable between one of at least two positions. Lacey, Jr. teaches an extension section (12) is adjustable between one of at least two positions (Col. 4, lines 16-21)(Fig.1b).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osofsky to include an adjustable extension section as taught by Lacey, Jr. to vary the length of the shock tube (MPEP 2144.04).

D. With respect to claim 17, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12). (See examiner's markings on Fig.1).

Also, regarding claim 17: It would have been obvious to a person having ordinary skill in the art at the time the invention was made to make adjustable/moveable the expansion section within the extension section, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens, 101 USPQ 284 (CCPA 1954)*.

E. With respect to claim 18, Osofsky teaches a shock tube (10) comprising a target (37) but lacks explicitly teaching a support for the target.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include a support since it is commonly known in the art to provide some type of support to hold/secure the target/test device (MPEP 2144.03).

F. With respect to claims 19 and 21, Osofsky teaches a shock tube (10) but lacks an extension section including two or more segments that are movable relative to another to change a length of the extension tube. Lacey, Jr. teaches an extension section including two or more

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segments that are movable relative to another to change a length of the extension tube (Col. 4, lines 16-21)(Fig.1b).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Osofsky to include two or more movable segments as taught by Lacey, Jr. to vary the length of the tube (MPEP 2144.04).

G. With respect to claim 20, Osofsky teaches a shock tube (10) wherein the extension section (35) includes an expansion section (30) connecting the extension section (35) to the driver section (12).

9. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osofsky (5,197,323) in view of Lacey, Jr. et al. (5,505,081) as applied to claim 7 above, and further in view of Spyche, Jr. (5,598,904).

A. With respect to claims 9 -11, Osofsky in view of Lacey Jr. et al. teach a shock tube (10) but lack a piston including a head and dashpot. Spyche, Jr. teaches a piston (16) including a head (18) and a dashpot/rod (20)(Fig.1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Osofsky in view of Lacey, Jr. et al. to include a piston as taught by Spyche, Jr. since it is commonly known in the art to provide a piston as an active vent in a shock tube (MPEP 2144.03).

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Response to Arguments

10. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

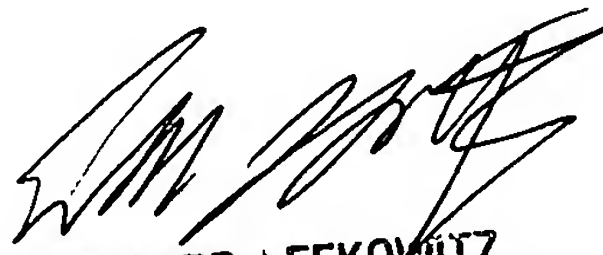
Johnson et al. (3,729,980) teach a hydrodynamic shock simulator.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Takisha Miller whose telephone number is (703) 305-4969. The examiner can normally be reached on Monday - Friday (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (703) 305-4816. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TM
April 4, 2003


EDWARD LEFKOWITZ
SUPERVISORY PATENT EXAMINER
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